

# MCAF2 (N-17): sc-164973

## BACKGROUND

MCAF2 (MBD1-containing chromatin-associated factor 2), also known as ATF7IP2 (activating transcription factor 7-interacting protein 2), is a 682 amino acid nuclear protein that exists as 2 alternatively spliced isoforms. MCAF2 can act as either an activator or repressor, thereby modulating chromatin formation and/or transcription regulation by linking transcription factors to transcription apparatuses. A member of the MCAF family, MCAF2 contains one fibronectin type-III domain and is thought to form a complex with ESET and MBD1. The gene encoding MCAF2 maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing mal- function with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastroin- testinal inflammatory condition.

## REFERENCES

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3. Bomont, P., et al. 2000. The gene encoding gigaxonin, a new member of the cytoskeletal BTB/kelch repeat family, is mutated in giant axonal neu- ropathy. *Nat. Genet.* 26: 370-374.
4. Cho, J.H. 2004. Advances in the genetics of inflammatory bowel disease. *Curr. Gastroenterol. Rep.* 6: 467-473.
5. Mathew, C.G., et al. 2004. Genetics of inflammatory bowel disease: progress and prospects. *Hum. Mol. Genet.* 13 Spec. No. 1: R161-R168.
6. Ichimura, T., et al. 2005. Transcriptional repression and heterochromatin formation by MBD1 and MCAF/AM family proteins. *J. Biol. Chem.* 280: 13928-13935.
7. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2010. Johns Hopkins University, Baltimore, MD. MIM Number: 613645. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: ATF7IP2 (human) mapping to 16p13.13.

## SOURCE

MCAF2 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of MCAF2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-164973 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MCAF2 (N-17) is recommended for detection of MCAF2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MCAF2 siRNA (h): sc-93392, MCAF2 shRNA Plasmid (h): sc-93392-SH and MCAF2 shRNA (h) Lentiviral Particles: sc-93392-V.

Molecular Weight (predicted) of MCAF2 isoforms: 75/61 kDa.

Molecular Weight (observed) of MCAF2: 87 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluo- rescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.